

Arizona Mathematics Standard Performance Level Descriptors

Grade 7

Exceeds the Standard – Students who score in this level illustrate a superior academic performance as evidenced by achievement that is substantially beyond the goal for all students. Students who perform at this level demonstrate a wealth of knowledge, skills, and abilities in fulfillment of the math standard. They can add and subtract integers, analyze, extend, and determine rules for creating geometric and numeric patterns, and calculate areas of circles, triangles and quadrilaterals.

Meets the Standard – Students who score in this level demonstrate a solid academic performance on subject matter as reflected by the math standard. Students who perform at this level are able to identify factors of positive whole numbers, apply properties of fractions, and identify, read, and interpret graphical representations of equations. They can use estimation to solve word problems, identify attributes of circles, and determine corresponding parts of congruent figures.

Approaches the Standard – Students who score in this level show partial understanding of the knowledge and application of the skills that are fundamental for proficient work. Students who perform at this level show some understanding of the math standard’s concepts and procedures by comparing, ordering, and solving one-step problems involving negative whole numbers, reading, analyzing, and drawing conclusions from data displays, and locating points in any quadrant of a coordinate grid. Some gaps in knowledge and skills are evident and may require additional instruction and remediation in order to achieve a satisfactory level of understanding.

Falls Far Below the Standard – Students who score in this level may have significant gaps and limited knowledge and skills that are necessary to satisfactorily meet the state’s math standard. Students will usually require a considerable amount of additional instruction and remediation in order to achieve a satisfactory level of understanding.

Students at the “Exceeds the Standard” level generally know the skills required at the “Meets” and “Approaches” levels and are able to:	Students at the “Meets the Standard” level generally know the skills required at the “Approaches” level and are able to:	Students at the “Approaches the Standard” level generally know and are able to:
<ul style="list-style-type: none"> • Add and subtract integers. • Find the shortest circuit on a vertex-edge graph. • Formulate questions that can be answered from information in word problems. • Complete data displays. • Analyze, extend, and determine rules for creating geometric and numeric patterns. • Use equations to solve word problems. • Identify complex transformations. • Calculate the volume of rectangular prisms. • Determine appropriate units of measure. • Calculate areas of circles, triangles and quadrilaterals. • Recognize relationships among angles. • Apply clues to solve logic problems. 	<ul style="list-style-type: none"> • Identify factors of positive whole numbers. • Use estimation to solve word problems. • Divide positive whole numbers. • Represent function tables using equations with two variables. • Identify, read, and interpret graphical representations of equations. • Identify corresponding parts of congruent figures. • Identify attributes of circles. • Apply properties of fractions. 	<ul style="list-style-type: none"> • Represent positive and negative whole numbers on number lines. • Determine operations to solve word problems. • Solve one-step problems involving negative whole numbers. • Compare and order negative whole numbers. • Solve multi-step word problems. • Estimate area of irregular figures using grids. • Estimate measure of angles. • Determine appropriate questions for surveys. • Express results of probability experiments as fractions. • Predict likelihood of results of probability experiments. • Read, analyze, and draw conclusions from data displays. • Determine all possible arrangements and combinations in word problems. • Translate word problems into algebraic notation. • Analyze linear relationships represented graphically. • Solve one-step algebraic equations with one variable. • Determine rules for creating function tables. • Locate points in any quadrant of a coordinate grid. • Use their properties to identify geometric solids. • Determine information needed to solve word problems.

These descriptors do not include all the skills and knowledge as contained in the Math Standard.